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EXAMINER	
NGUYEN, STEVEN C	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/684,126	**Applicant(s)** PESSACH, YANIV
	Examiner STEVEN C. NGUYEN	**Art Unit** 2443

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) *10-27 and 29-34* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *10/10/2003, 11/13/2003*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Response to Election/Restriction received on 03/23/2009. **Claims 1-9, 28** have been elected.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-9, 28** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite the limitation "computer readable medium." In applicant's specification *(Paragraph 41)*, applicant defines computer readable medium as including "both computer storage media and communication media" and further defines communication media as "instructions or data in a modulated data signal such as a carrier wave…". A signal or carrier wave does not fall within one of the four statutory categories of invention and is therefore unpatentable.

3. **Claims 1-9, 28** are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to a particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of In Re Bilski 88 USPQ2d 1385. A particular machine is a machine that is not every machine and an example of an insignificant tie would be adding a computer display to a manual process. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claim 28** is rejected under 35 U.S.C. 102(e) as being anticipated by Wardrop (US Patent 7,451,217), hereinafter Wardrop.

5. **Regarding Claim 28,** Wardrop disclosed:

a. A computer-readable medium having thereon computer-executable instructions for performing a method comprising: formatting a peer-to-peer search response message in response to a peer-to-peer search request message *(Column 7, Lines 5-17 state that when a new message is received, a new GUID is generated and placed within the message)*;

b. the peer-to-peer search request message having a peer-to-peer routing path, the peer-to-peer routing path listing, in order, at least one peer in a peer-to-peer network traversed by the peer-to-peer search request message, the peer-to-peer routing path listing beginning with an originating peer of the peer-to-peer search request message *(Column 6, Lines 18-33 state that a connection host list is provided for each node. The list shows all nodes that are connected to the peer node, which are the nodes that are going to be polled for content)*;

c. sending, from a responding peer, the peer-to-peer search response message to the first peer in the peer-to-peer routing path that is a neighboring peer of the responding peer *(Column 6, Lines 54-62 state that the message is sent to the user node's connected peers)*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wardrop (US Patent 7,451,217) in view of Juels et al (US Patent 7,197,639), hereinafter Wardrop and Juels respectively.

7. **Regarding Claim 1,** Wardrop disclosed:

a. A computer-readable medium having thereon computer-executable instructions for performing a method comprising: formatting a peer-to-peer search request message *(Column 6, Lines 54-62 state that when a query message is generated, the message is appropriately formatted with information)*;

b. sending the peer-to-peer search request message to at least one receiving peer in a peer-to-peer network *(Column 6, Lines 54-62 state that the message is sent to the user node's connected peers)*.

Wardrop did not explicitly disclose:

c. solving a distributed throttling computational puzzle for the peer-to-peer search request message.

However, Juels disclosed:

d. solving a distributed throttling computational puzzle for the peer-to-peer search request message *(Column 6, Lines 31-64 state that when a client send a request message, the client is required to first solve a computational task/exercise to achieve some defined variable or result before the message is accepted)*.

e. The utilization of the readily available solving a distributed throttling computational puzzle for the peer to peer search request message of Juels would have been obvious to one of ordinary skill in the art in view of the teachings of Wardrop since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to increase security within the peer to peer system.

8. **Regarding Claim 2,** the limitations of Claim 1 have been addressed. Wardrop disclosed:

a. generating a globally unique identifier for the peer-to-peer search request message *(Column 7, Lines 5-17 state that each message contains a globally unique identifier)*;

b. formatting the peer-to-peer search request message results in a peer-to-peer search request message format comprising the globally unique identifier for the peer-to-peer search request message *(Column 7, Lines 5-17 state that when a new message is received, a new GUID is generated and placed within the message)*.

9. **Regarding Claim 3,** the claim is substantially similar to Claim 2 and is therefore rejected under the same rationale.

10. **Regarding Claim 4,** the limitations of Claim 1 have been addressed. Wardrop disclosed:

a. the peer-to-peer search request message is sent from a sending peer to said at least one receiving peer *(Column 6, Lines 54-62 state that the message is sent to the user node's connected peers)*;

b. each receiving peer is a neighbor of the sending peer in the peer-to-peer network *(Column 6, Lines 54-62 state that the message is sent to the user node's connected peers)*.

11. **Regarding Claim 5,** the limitations of Claim 1 have been addressed above. Wardrop did not explicitly disclose:

a. wherein said at least one receiving peer processes the peer-to-peer search request message if the distributed throttling computational puzzle is solved.

However, Juels disclosed:

b. wherein said at least one receiving peer processes the peer-to-peer search request message if the distributed throttling computational puzzle is solved *(Column 6, Line 65 – Column 7, Line 9 state that there is a computational task solution verifier that verifies if the solution to the puzzle was correct. The verifier can be part of a server or the functionality can be delegated to any other entity in the network).*

c. The utilization of the readily available at least one receiving peer processes whether the puzzle was solved of Juels would have been obvious to one of ordinary skill in the art in view of the teachings of Wardrop since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to authenticate the client request.

12. Regarding Claim 6, the limitations of Claim 1 have been addressed. Wardrop did not explicitly disclose:

a. wherein verifying that the distributed throttling computational puzzle is solved is less computationally expensive than solving the distributed throttling computational puzzle.

However, Juels disclosed:

b. wherein verifying that the distributed throttling computational puzzle is solved is less computationally expensive than solving the distributed throttling computational puzzle *(Column 14, Lines 54-64 state that the puzzle/computational task solver will only have to search through a portion of possible values before discovering the correct solution. A portion of the input data is revealed to the puzzle/computational task solver so that it reduces the number of possible solutions the be searched and tested)*.

c. The utilization of the readily available verification of the puzzle being less expensive than solving the puzzle of Juels would have been obvious to one of ordinary skill in the art in view of the teachings of Wardrop since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to not overload the entire system by having to check results by computing every possible value.

13. Regarding Claim 7, the limitations of Claim 1 have been addressed. Wardrop did not explicitly disclose:

a. wherein solving the distributed throttling computational puzzle for the peer-to-peer search request message comprises transforming the peer-to-peer search request message in combination with the distributed throttling computational puzzle solution with a one way function.

However, Juels disclosed:

b. wherein solving the distributed throttling computational puzzle for the peer-to-peer search request message comprises transforming the peer-to-peer search request message in combination with the distributed throttling computational puzzle solution with a one way function *(Column 14, Lines 14-36 state that the cryptographic puzzle is solved by hashing, a one way function. In this situation the client sends the request message along with the solution to the puzzle for verification)*.

c. The utilization of the readily available transforming the search request message in combination with the computational puzzle with a one way function of Juels would have been obvious to one of ordinary skill in the art in view of the teachings of Wardrop since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to incorporate the request into a single message to reduce the strain on the network.

14. Regarding Claim 8, the limitations of Claim 1 have been addressed. Wardrop disclosed:

a. wherein the peer-to-peer search request message is associated with a peer-to-peer search having a peer-to-peer search radius *(Column 6, Lines 26-33 state that each peer includes a connection host list that identifies nodes connected to the original node)*.

Wardrop did not explicitly disclose:

b. solving the distributed throttling computational puzzle has a computational cost that is a function of the peer-to-peer search radius.

However, Juels disclosed:

c. solving the distributed throttling computational puzzle has a computational cost that is a function of the peer-to-peer search radius *(Column 14, Lines 14-64 state that a computational puzzle is solved before allowing the request to go through. As each client would need to verify the solution to the puzzle, it would take longer as more clients need to verify the solution)*.

d. The utilization of the readily available solving the puzzle in relation to the search radius of Juels would have been obvious to one of ordinary skill in the art in view of the teachings of Wardrop since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to ensure that if the client comes in contact with more nodes, it is more difficult to receive authentication.

15. Regarding Claim 9, the limitations of Claim 1 have been addressed. Wardrop disclosed:

a. wherein sending the peer-to-peer search request message to at least one receiving peer in the peer-to-peer network comprises: selecting a multicast set from said at least one receiving peer, each receiving peer having a peer-to-peer search multicast probability of being included in the multicast set *(Column 6, Lines 18-33 state* *that each node has a connection host list that reveals which nodes are directly connected that the requesting node. The node forwards the query to each node in its list of connected nodes)*;

b. sending the peer-to-peer search request message to each receiving peer in the multicast set *(Column 6, Lines 18-25 state that the node forwards the query to each node in its list of connected nodes)*.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN C. NGUYEN whose telephone number is (571)270-5663. The examiner can normally be reached on Monday through Thursday with alternating Friday 7:30AM - 5:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S.C.N./
Examiner, Art Unit 2443
06/05/2009

/George C Neurauter, Jr./
Primary Examiner, Art Unit 2443